

EXHIBIT 152

REDACTED

Jedi++ Header Bidding Response Options

10/13/2016

Doc: [Jedi++ Outline](#)

Presenter: [REDACTED]

TL:DR

- HB is growing and the use cases of HB are expanding
- HB solutions + price competition from emergent ad servers + SSPs pose a competitive threat to DFP's value prop of being a broad source of access to premium inventory
- There are a number of strategic questions to answer for Jedi and for DFP / AdX more broadly
- There's general interest in making changes to maintain DFP's current access to inventory; we'll come back to sellside review with more data

AI

- Clarify impact of giving up last look advantage in EB++ proposal
- Model impact on revenue + profit if we modify AdX rev share
 - Model for a range of rev shares, including 9 - 14% and 0%
 - Do analysis without assumptions and with reasonable assumptions built in
 - Assume you can move some margin to GDN, but not all, to prevent too much discrepancy with DBM.
 - Perform analysis on just mobile app slice as well
- Continue scoping a whitelist approach for non-HB queries (and if other AdServers would be willing to participate)
 - Perform analysis of how much inventory buy side would lose if it only bid on white listed non-HB queries
- GDN + DBM: continue to explore approach of exposing data around bids across exchanges to push for transparency in exchange fee structure
- Think about long-term competitive risks that solutions by companies like Facebook + Amazon present
- Come back with concrete proposal; only include options in presentation that have widespread support

Meeting notes

- Goal: present options for mitigating growth of header bidding infrastructure
- Two tracks for response
 - Make EB more competitive against HB
 - Compete more aggressively against other exchanges
- Header bidding is growing; there are three use cases
 - Remarketing / big buyer
 - Response is First Look
 - Auction pressure
 - Getting more demand to compete in DFP as a result of HB - real time prices as opposed to average CPMs
 - Deals
 - Is currently feeding investment into header infrastructure
 - Header is just flexible pipe to let buyers control when to transact on deals
 - Agencies striking deals directly with pubs + leveraging header infra
- Eisar: What is the difference between HB and mediation?

Commented [1]: AI: + [REDACTED]
+ [REDACTED]@google.com

Commented [2]: Also + [REDACTED]@google.com is helping with this.

Commented [3]: See [REDACTED]

- We currently do [REDACTED] for private auctions; creates incentive for pubs to move inventory to private auctions from open auction
- Eisar: Is there quantitative data on impact?
 - [REDACTED]: yes, we did simulations but they didn't account for increased volume that would result
 - [REDACTED]: our high rev share creates a market opportunity for header infra, exploiting the fact that other SSPs have lower rev shares
Eisar: problem is that you are giving up revenue / profit for sure with goal of stopping acceleration of HB
- [REDACTED]: makes gap between AdX + Jedi small when you add Jedi rev share to rev share of other SSPs
- **AI: Model profit losses if we decrease AdX rev share; model increases in volume in analysis**
 - Nirmal: roughly revenue neutral; [REDACTED] drop in overall profit
 - Eisar: Green light to do all necessary analysis; should do base model with no assumption + variants w/ reasonable assumptions
- Engineering investment in programmatic deals
 - Having a rich feature set for programmatic deals makes your tag important to have on page
 - We see programmatic deals as a major trend in the industry
 - Main concerns: flexibility + letting buyers decide what they want to buy
 - Eisar: how is this different than private auction?
 - [REDACTED]: private auction requires inventory to be accessed through DFP stack; current HB solution lets buyer see all inventory upfront
 - We essentially don't support all use cases in market today
 - Eisar: sounds like good idea, I'm worried about unintended consequences; Can you add clear carrot for us that can't be unbundled?
 - [REDACTED]: Carrot is that we are part of txn and we maintain control of inventory + what deal wins (to a certain extent)
 - Eisar: I want to make it clear that you shouldn't let pubs use sponsorships to lock us out of inventory
 - [REDACTED]: by maintaining access to inventory we can show pub opportunity costs of decisions which is very valuable
- Full bid landscape
 - Lack of full bid landscape is currently one of biggest sources of lack of trust in Google
 - Almost all exchanges have this
 - Let's you see gap between bids + txn price
 - Exposes "inner guts" of auctions
 - Eisar: I thought other SSPs were running dirty auctions, how can they be more transparent?
 - [REDACTED]: pubs don't care if the auctions are dirty, they just want to make more money
 - Other exchanges don't offer opt out to buy side from full bid landscape
- Prevent self-flooring

- DBM + GDN would only bid on queries that are known to come from ad server
 - Essentially, don't bid on HB queries
- Effect in short term would be to move a lot of rev to AdX and put pressure on HB infra
- Aparna: if we can detect this, should we do this (question to product buy side)?
 - [REDACTED]: problem is that we don't know how to detect HB, we would do this if we could
 - Aparna: practically speaking, there are 3 ad servers, we should try to get them to contribute to white list of non-HB queries
 - Overall consensus from buy side: we don't want to compete on HB queries
 - Woojin: there are cases where EDA locks buy side out - there could be incremental queries w/ HB as result
 - Buy side also wants efficient access (e.g. lower exchange / SSP rev share)
 - Is buy side willing to give up some inventory in making the decision to only bid on non-HB queries?
 - Eisar: principle should be that you don't buy on inventory if you aren't sure if it's HB
 - [REDACTED]: Tag has adopted a notion of a path that an ad request has gone down
 - **AI: Go down path of forming coalition of ad servers to whitelist non HB queries**
 - **AI: Quantify how many queries buyers (out of the universe of all possible queries) would lose with "prevent self-flooring" option**
 - Eisar: would we make an announcement?
 - [REDACTED]: it would really help the industry if we showed DBM + GDN take this seriously
 - Brad: we'd have to come up with the objective measures for why we believe HB is bad for buy side (e.g. fraud protection, latency)
 - [REDACTED]: PR positive message that we are protecting buyers
- Payout transparency
 - Putting pressure on exchanges in terms of how they are pricing buy side + sellside
 - Proposal is to have DBM + GDN express how much they are paying across exchanges so pub can see delta between what buy side pays + how much they receive
 - [REDACTED]: idea is for UI to be in DFP
 - **AI: DBM + GDN -- continue to investigate this approach + if feasible, supply this data to push for transparency**
 - Aparna: DBM said this is hard to do + might not be possible
 - [REDACTED]: Even DBM doesn't know how much it will be charged by exchange until the end of the month

- [REDACTED]: We should really look into "payout transparency" + investigate feasibility
- Nuclear options
 - [REDACTED]: why is making sell-side free not best option?
 - [REDACTED]: very big financial implications
 - **AI: do analysis for margin of 0% to see of financial impact; assume you can move some fee to buy side but not too much**
 - [REDACTED] *REDACTED - PRIVILEGE*
 - [REDACTED]: is it possible to have [REDACTED] fee for pubs with [REDACTED] fee to buy side?
 - [REDACTED]: problem is that this doesn't kill HB unless it is a true value prop
 - Problem: we are Google, we can't compete on "being slimy"
 - [REDACTED]: nuclear proposal is strongest response but cuts off a lot of our revenue
 - [REDACTED]: we may not have this option in the future, value in timing
 - There are things we can do on buy side to make additional margin (e.g. taking risk away from buyers with Market Maker)
 - Woojin: massive margin compression in the market right now
 - Aparna: reason HB has been rising is b/c there are pockets of demand we are missing through things like policies; big leap to say it's inevitable that our margin will collapse
 - **AI: involve app analysis in buyside / sellside margin considerations**
 - **AI: estimate Amazon + Facebook's future trajectory + competitive risks**
 - **AI: next deck is concrete proposal w/ options that people don't like not presented as options**